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10/589,673	05/21/2007	Masaki Kaneda	0670-7083	9942

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EXAMINER	
MAWARI, REDHWAN K	

ART UNIT	PAPER NUMBER
3663	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/589,673	KANEDA ET AL.	
	Examiner	Art Unit	
	REDHWAN MAWARI	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 November 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

This Office Action is responsive to Applicant's amendment and request for reconsideration of application 10/589,673 filed on November 25, 2009.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claims 1, 3 and 6, the phrase ***"wherein the calculation unit operates to search a route between two consecutive locations in the via-sequence, and when a link or node to be passed through during congested time slots are included in data for the route between the two consecutive locations, the calculation unit further operates to change the value of cost information of the congested link or node to a predetermined greater value and thereafter to re-search a route between the two consecutive locations "*** renders the claim indefinite because it is unclear. More specifically, it is unclear as to how the cost value is changing, i.e. based on what? Is it based on congestion? Furthermore, the phrase "greater value" is unclear. What value the applicant meant? Also greater than what?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mannesmann (EP1 106 968 A1) in view of Sunaga (PAT-NO JP408094374) and Anderson (2002/0082771);

Alternatively Mannesmann (EP1 106 968 A1) in view of Okano (6,510,384) and Anderson (2002/0082771).

Consider claim 1, Mannesmann discloses a guide route search device, the device comprising:

a specification unit adapted to specify a plurality of locations which a user drops in before reaching a destination (abstract, and figure 4);

a calculation unit adapted to calculate an arrival time at each of the specified locations when successively visiting those locations in each of the via-sequence patterns generated by the route pattern generation unit while avoiding passing through congested places and/or places which may be congested in accordance with predetermined traffic information, (figure 2, 3, and 4);

a judgment unit adapted to judge whether the calculated arrival time of each location matches conditions for an arrival time at each location ([paragraph 0016], and figure 4); and

a selection unit adapted to select the via-sequence being an optimum route via the locations where the judgment unit has judged that the conditions are matched at all the specified locations, as a via-sequence of the guide route ([abstract]).

Mannesmann does not explicitly disclose a route pattern generation unit adapted to generate all via-sequence patterns in each of which the specified locations are visited once in sequence (see at least col. 14, lines 36-67);

Sunaga teaches a route pattern generation unit adapted to generate all via-sequence patterns in each of which the specified locations are visited once in sequence (see a least abstract); therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to combine the invention of Sunaga into the invention of Mannesmann for the purpose of improving the efficiency of the route guidance;

Alternatively Okano teaches a route pattern generation unit adapted to generate all via-sequence patterns in each of which the specified locations are visited once in sequence (see at least col. 17, lines 1-16, wherein the ranking of the patterns is based on the arrival time, therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to rank the route

patterns in ascending order or descending order i.e. earliest arrival time or latest arrival time);

Sunaga further teaches wherein the route pattern generation unit operates to generate a plurality of route patterns on the basis of the via-sequence patterns and to sort the generated route patterns in ascending order of the arrival time at the destination (see a least abstract); therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to combine the invention of Sunaga into the invention of Mannesmann for the purpose of improving the efficiency of the route guidance;

Alternatively Okano further teaches wherein the route pattern generation unit operates to generate a plurality of route patterns on the basis of the via-sequence patterns and to sort the generated route patterns in ascending order of the arrival time at the destination (see at least col. 17, lines 1-16, wherein the ranking of the patterns is based on the arrival time, therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to rank the route patterns in ascending order or descending order i.e. earliest arrival time or latest arrival time);

Okano teaches changing cost based on the time delay (see at least FIG. 11); however Okano does not explicitly disclose a congestion section, even though it would have been obvious to an ordinary skilled person in the art that a congestion could cause a time delay; however, examiner introduces a secondary reference fore clarification;

Anderson teaches wherein the calculation unit operates to search a route between two consecutive locations in the via-sequence, and when a link or node to be passed through during congested time slots are included in data for the route between the two consecutive locations, the calculation unit further operates to change the value of cost information of the congested link or node to a predetermined greater value and thereafter to re-search a route between the two consecutive locations (see at least paragraph [0026], wherein the travel time changes based on any event that can occur on the way for example, congestion. Furthermore, see at least FIG. 4, wherein based on the event i.e. congestion, a new utility metric is recalculated and based on the value, i.e. whether it is greater than a certain threshold, an alternative route is obtained);

Accordingly, it would have been obvious to an ordinary skilled person in the art to modify the invention to include the invention of Anderson for the purpose of providing high quality location information for a vehicle which can be easily tracked in real time.

Consider claim 2, Mannesmann further discloses the calculation unit comprises:

a determination part for determining a via-sequence of the specified plurality of via-locations (see at least Mannesmann abstract);

a search part for searching a route between two consecutive locations in the via-sequence (see at least Mannesmann col. 6, lines 54-57);

a re-search part for re-searching a route between the two locations when the searched route includes a congested place and/or a place which may be congested, so as to avoid the congested place and/or the place which may be congested (see at least Mannesmann [paragraph 0016] and [paragraph 0017] and figure 4); Mannesmann discloses updating the travel plan based on various conditions; and

a time calculation part for calculating an arrival time at each of the locations, either based on a travel time between the two locations of a route searched by the search part when the route searched by the search part does not include a congested place and/or a place which may be congested, or based on a travel time between the two locations of a route re-searched by the re-search part when the route searched by the search part includes a congested place and/or a place which may be congested (see at least Mannesmann figure 2, 3, and 4);

Consider claim 3, Mannesmann further discloses a specification unit adapted to specify a plurality of locations (see at least Mannesmann abstract, and figure 4);

A route pattern generation unit adapted to generate all via-sequence patterns in each of which the specified locations are visited once in sequence;

a search unit adapted to search a route between two successive locations; each of the via-sequence patterns generated by the route pattern generation unit (see at least Mannesmann col. 6, lines 54-57);

a first time calculation unit adapted to calculate an arrival time at each of the locations based on a travel time between the two locations in the route searched by the search unit (see at least Mannesmann figure 2, 3, and 4);

a first judgment unit adapted to judge whether the arrival time of each location calculated by the first time calculation unit matches an arrival time condition at each location (see at least Mannesmann [paragraph 0016], and figure 4);

a re-search unit adapted to re-search a route between the two locations when the route which has been judged by the first judgment unit to match the arrival time condition includes a congested place and/or a place which may be congested, so as to avoid the congested place and/or the place which may be congested (see at least Mannesmann [paragraph 0016] and [paragraph 0017] and figure 4); Mannesmann discloses updating the travel plan based on various conditions

a second time calculation unit adapted to calculate an arrival time at each of the locations based on a travel time between the two locations in the route re-searched by the re-search unit; Mannesmann doesn't explicitly disclose a second time calculation unit; however it would have been obvious to an ordinary skilled

person in the art to recognize that the time location unit can calculate the arrival time based on the first time inputs as well as the second time inputs i.e. research.

a second judgment unit adapted to judge whether the arrival time at each location calculated by the second time calculation unit matches the arrival time condition at each location, Mannesmann doesn't explicitly disclose a second judgment unit; however it would have been obvious to an ordinary skilled person in the art to recognize that the time location unit can calculate the arrival time based on the first time inputs as well as the second time inputs i.e. research; and

a selection unit adapted to select as the via-sequence of a guide route a single via-sequence from the via-sequences where the first judgment unit has judged that the conditions are matched at all the locations specified and which do not include congested places and/or places which may be congested, and from via-sequences where the second judgment unit has judged that the conditions are matched at all the locations specified (see at least Mannesmann [abstract]).

Mannesmann does not explicitly disclose a route pattern generation unit adapted to generate all via-sequence patterns in each of which the specified locations are visited once in sequence

Sunaga teaches a route pattern generation unit adapted to generate all via-sequence patterns in each of which the specified locations are visited once in sequence (see a least abstract); therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to combine the

invention of Sunaga into the invention of Mannesmann for the purpose of improving the efficiency of the route guidance;

Alternatively Okano teaches a route pattern generation unit adapted to generate all via-sequence patterns in each of which the specified locations are visited once in sequence (see at least col. 17, lines 1-16, wherein the ranking of the patterns is based on the arrival time, therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to rank the route patterns in ascending order or descending order i.e. earliest arrival time or latest arrival time);

Sunaga further teaches wherein the route pattern generation unit operates to generate a plurality of route patterns on the basis of the via-sequence patterns and to sort the generated route patterns in ascending order of the arrival time at the destination (see a least abstract); therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to combine the invention of Sunaga into the invention of Mannesmann for the purpose of improving the efficiency of the route guidance;

Alternatively Okano further teaches wherein the route pattern generation unit operates to generate a plurality of route patterns on the basis of the via-sequence patterns and to sort the generated route patterns in ascending order of the arrival time at the destination (see at least col. 17, lines 1-16, wherein the ranking of the patterns is based on the arrival time, therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to rank

the route patterns in ascending order or descending order i.e. earliest arrival time or latest arrival time);

Okano teaches changing cost based on the time delay (see at least FIG. 11); however Okano does not explicitly disclose a congestion section, even though it would have been obvious to an ordinary skilled person in the art that a congestion could cause a time delay; however, examiner introduces a secondary reference fore clarification;

Anderson teaches wherein the calculation unit operates to search a route between two consecutive locations in the via-sequence, and when a link or node to be passed through during congested time slots are included in data for the route between the two consecutive locations, the calculation unit further operates to change the value of cost information of the congested link or node to a predetermined greater value and thereafter to re-search a route between the two consecutive locations (see at least paragraph [0026], wherein the travel time changes based on any event that can occur on the way for example, congestion. Furthermore, see at least FIG. 4, wherein based on the event i.e. congestion, a new utility metric is recalculated and based on the value, i.e. whether it is greater than a certain threshold, an alternative route is obtained).

Accordingly, it would have been obvious to an ordinary skilled person in the art to modify the invention to include the invention of Anderson for the purpose of providing high quality location information for a vehicle which can be easily tracked in real time.

Consider claim 4, Mannesmann further discloses wherein the second time calculation unit operates so as to generate arrival times for all the selected locations whenever a travel time between the two locations is computed (figure 2, 3, and 4), and

the judgment unit operates so as to judge whether the arrival time of each location generated by the time calculation unit matches the arrival time condition at each location whenever a travel time between the two locations is computed ([paragraph 0016], and figure 4).

Consider claim 5, Mannesmann further discloses wherein the first judgment unit operates so as to judge whether the arrival time at each location calculated by the first time calculation unit matches a guide time slot at each location ([paragraph 0016], and figure 4);

the second judgment unit operates so as to judge whether the arrival time at each location calculated by the second time calculation unit matches a guide time slot at each location, Mannesmann doesn't explicitly disclose a second judgment unit; however it would have been obvious to an ordinary skilled person in the art to recognize that the time location unit can calculate the arrival time based on the first time inputs as well as the second time inputs i.e. research; and

the re-search unit operates so as to re-search a route between the two locations in which the arrival times at a portion of or all of the locations are judged by the first judgment unit to be earlier than the respective guide time slots thereof, and when the route includes congested places and/or places which may

be congested for via-sequences where the arrival times of the remaining locations match the respective guide time slots thereof, re-searches a route between the two locations so as to avoid the congested places and/or the places which may be congested ([paragraph 0016] and [paragraph 0017] and figure 4); Mannesmann doesn't explicitly disclose a re-search part, however Mannesmann discloses updating the travel plan based on various conditions.

Consider claim 6, Mannesmann discloses the method comprising the steps of:

specifying a plurality of locations which a user drops in before reaching a destination (see at least Mannesmann [paragraph 0002]);

generating all via-sequence patterns in each of which the specified location are visited once in sequence

calculating the arrival time at each of the specified locations when successively visiting those locations in one via-sequences (see at least Mannesmann [paragraph 0011, 0016]) while avoiding passing through congested places and/or places which may be congested in accordance with predetermined traffic information, the one of via-sequences being any one of all possible routes via those locations ([paragraph 0018]); Mannesmann doesn't explicitly disclose predetermined traffic information, however it would have been obvious to an ordinary skilled person in the art to recognize that the traffic information would be predetermined prior to transmitting it to users;

judging whether the calculated arrival time of each location matches conditions for an arrival time at each location (see at least Mannesmann [paragraph 0011]); and

selecting the via-sequence being an optimum route via the locations wherein it has been judged by the judging step that the conditions are matched at all the specified location, as a via-sequence of the guide route (see at least Mannesmann [paragraph 0009]);

Sunaga teaches a route pattern generation unit adapted to generate all via-sequence patterns in each of which the specified locations are visited once in sequence (see a least abstract); therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to combine the invention of Sunaga into the invention of Mannesmann for the purpose of improving the efficiency of the route guidance;

Alternatively Okano teaches a route pattern generation unit adapted to generate all via-sequence patterns in each of which the specified locations are visited once in sequence (see at least col. 17, lines 1-16, wherein the ranking of the patterns is based on the arrival time, therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to rank the route patterns in ascending order or descending order i.e. earliest arrival time or latest arrival time);

Sunaga further teaches wherein the route pattern generation unit operates to generate a plurality of route patterns on the basis of the via-sequence patterns

and to sort the generated route patterns in ascending order of the arrival time at the destination (see a least abstract); therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to combine the invention of Sunaga into the invention of Mannesmann for the purpose of improving the efficiency of the route guidance;

Alternatively Okano further teaches wherein the route pattern generation unit operates to generate a plurality of route patterns on the basis of the via-sequence patterns and to sort the generated route patterns in ascending order of the arrival time at the destination (see at least col. 17, lines 1-16, wherein the ranking of the patterns is based on the arrival time, therefore it would have been obvious to an ordinary skilled person in the art at the time of the invention to rank the route patterns in ascending order or descending order i.e. earliest arrival time or latest arrival time);

Anderson teaches wherein the calculation unit operates to search a route between two consecutive locations in the via-sequence, and when a link or node to be passed through during congested time slots are included in data for the route between the two consecutive locations, the calculation unit further operates to change the value of cost information of the congested link or node to a predetermined greater value and thereafter to re-search a route between the two consecutive locations (see at least paragraph [0026], wherein the travel time changes based on any event that can occur on the way for example, congestion. Furthermore, see at least FIG. 4, wherein based on the event i.e. congestion, a

new utility metric is recalculated and based on the value, i.e. whether it is greater than a certain threshold, an alternative route is obtained).

Accordingly, it would have been obvious to an ordinary skilled person in the art to modify the invention to include the invention of Anderson for the purpose of providing high quality location information for a vehicle which can be easily tracked in real time.

Note: Claims 1-5 recite that the statements "adapted to", "operate", "wherein", etc. performs a function is not a positive limitation but only requires the ability to so perform. It doesn't constitute a limitation in any patentable sense.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Redhwan Mawari whose telephone number is 571 270 1535. The examiner can normally be reached on 7:30 AM - 5PM Mon-Fri Eastern Alt Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

02/01/2010

/R. M./
Examiner, Art Unit 3663

/Tuan C To/

Primary Examiner

February 15, 2010